TECHNICAL REPORT

For The

Cargo Movement Operations System (CMOS)

Navy TCAIMS Documentation Review

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Table of Contents

Cargo Movement Operations System ?

SECTION I

Introduction. The purpose of this report is to present the similarities and differences between the Navy TCAIMS project and the Air Force CMOS project. The analysis of the projects' documentation in Section II progresses from strategic to structured bases of comparison. The analysis focuses on three perspectives. Perspective One addresses the system development strategies of the two projects. Perspective Two identifies the organizational entities involved and lists their wartime and peacetime responsibilities in meeting the DOD TCAIMS charter. Their responsibilities are categorized to illustrate differences and similarities. Perspective Three examines differences in terms of processes and systems to be utilized. Appendix A contains a responsibility category cross reference. Appendix B contains a list of abbreviations and acronyms.

Summary. A comparison of CMOS and TCAIMS at the strategic development level reveals similarity in that both projects seek to satisfy the goals of the DOD TCAIMS charter. The projects differ in that the AF automates day-to-day operations as the basis for supporting all transportation contingencies, and the Navy concentrates on the creation and maintenance of a central database for unit deployments. Another development difference is that the AF project follows DOD-STD-2167A and the associated Air Force 800 series regulations, while the Navy project follows DOD-STD-7935A and the Navy equivalent of the Air Force 700 series regulations.

Examination of the organizational structure that supports each project reveals that the services take radically different approaches to allocating DOD TCAIMS responsibilities to organizational entities. The AF organizational structure is characterized by a hierarchical relationship and consolidation of transportation functions at the base transportation office. The Navy organizational structure separates cargo, passenger, and reserve force responsibilities between entities in a less clear cut hierarchical arrangement.

Analysis of the projects in terms of processes and systems reveals that Navy TCAIMS and the AF's combination of CMOS and COMPES will accomplish similar objectives. Additionally, both the distribution of processes during mobility and day-to-day operations, as well as their application within each service's organizational structure, affect the definition of tasks that are otherwise common to the services. A key process distinction is the transfer of MILSTRIP data from AF and DOD supply activities to CMOS. Prepositioning MILSTRIP shipment records is a primary means of electronically capturing data that will not be replicated in TCAIMS.

Conclusion. By far, the greatest number of differences occur in the allocation of DOD TCAIMS responsibilities among organizational entities. The greatest number of similarities exist at the structured task and process level. However, organizational

differences pervade the definition of tasks and lessen the ability to exploit the similarities between AF and Navy processes that are designed to satisfy the same TCAIMS mandate.

SECTION II

RESULTS.

Perspective One. The AF CMOS and Navy TCAIMS concepts are built around the Defense Guidance directing TCAIMS. The mandate calls for each service to provide automated support for the mobilization and deployment of forces. Fundamental to meeting this responsibility are the requirements to maintain data bases with deployment options, produce MILSTAMP documentation, exchange movement data, prepare load plans, update schedules, and report movements to command authorities.

CMOS Development Strategy. The CMOS development and implementation concept is driven by the need to establish an infrastructure to automate day-to-day traffic management operations. Using an incremental strategy, the first increment sets in motion processes and procedures for re-enforcement in a peacetime environment so that wartime execution is not dependent on retraining. Automating day-to-day traffic management activities is key to Increment I. The basic capabilities include LOGMARS, electronic interactions with nine logistics systems, a relational data base management system to collect data and produce transportation documentation, local area networking for intra-base data transfer, and the Defense Data Network for additional intra-base and inter-base data transfer.

Increment II adds processing and reporting capability for unit moves and brings in nine more interfaces with automated systems to improve the visibility over cargo and passengers. Intransit visibility will be further elevated by the adoption of EDI between TMOs and commercial carriers.

Increment III affords the opportunity to improve upon the system through a task order arrangement. Several previously planned enhancements are being deferred to this increment due to potential developmental delays or task complexity.

TCAIMS Development Strategy. The Navy's development objective is also designed to automate the day-to-day cargo and passenger functions as the foundation on which to overlay TCAIMS' mobility planning, execution, and reporting attributes. To meet this strategy, the system will be developed and fielded in phases. Phase I covers the BSO and NAVPTO peacetime functions. Phase II addresses Unit procedures, and Phase III deals with the upward reporting used by the OPNAV and the FLTCINC to update the JDS.

The top priority of the Navy TCAIMS development concept is to support the deployment of naval forces in contingency operations. A top-down strategy is being followed to enable commanders to monitor and direct unit movements. The focus of this strategy is the assimilation of an accurate central data base containing both planning and execution data. The success of the central data base is dependent on

maintaining unit movement requirements in a decentralized data base and standardizing procedures for transportation requests and requirements processing. Data is entered at its source, plans are tailored, and movements are reported to the central data base. Collectively, the Navy units (supported by the transportation coordinators), BSOs, the NAVPTOs, the FLTCINCs, the CNRF, and the OPNAV benefit from the data base.

This top-down strategy consists of the command level and the activities level. The command level is composed of the OPNAV, the three FLTCINCs, the CNRF, the NAVMTO, and the NMPC. The commands use the TCAIMS central data base for deliberate planning and direction of forces at execution. The four primary tasks performed at this level are: (1) maintain a command-oriented data base using input from the central data base, (2) monitor movements for command and control visibility, (3) report movements to the JCS, and (4) validate SAAMs.

The activities level is composed of unit transportation coordinators, BSOs, and NAVPTOs. The primary responsibility of the unit transportation coordinator is to maintain a data base reflecting the unit's transportation requirements for each tasking scenario. The data base will consist of movement requirements for equipment, material, and personnel. The unit will also perform automated air load planning, maintain movement schedules, send requests for transportation to the BSO and NAVPTO, request SAAMs from NAVMTO and NMPC, and report actual movement to the appropriate FLTCINC or CNRF. The BSOs and NAVPTOs will maintain the unit movement requests, reserve transportation with MAC and MTMC, monitor the status of both, and produce MILSTAMP documentation for the units. The BSOs will perform surface load planning. The NAVMTO and NMPC will validate and arrange SAAMs.

Strategy Differences. The development strategies of CMOS and TCAIMS differ in three areas. CMOS takes a bottom-up approach, automating operation level activities first; TCAIMS follows a top-down approach, concentrating on the development of the central TCAIMS data base. Next, the two have differently defined scopes in four areas:

1. TCAIMS will not have an electronic interface with Navy supply activities in a manner corresponding to the CMOS interface with the retail supply system (SBSS), and the wholesale supply systems (SC&D, GSA, and DLA).

2. Unlike TCAIMS, CMOS will automate the cargo receipt and in-check functions as well as cargo inventory and on-hand management.

3. The management of unit movement requirements for base level AF activities is accomplished by COMPES. CMOS retrieves requirement data via an interface with COMPES. TCAIMS will build and maintain its own data base comparable to that used by COMPES.

4. CMOS is being developed for worldwide implementation at all TMOs, their MAJCOMs, NAFs, and ALDs. TCAIMS will only be fielded at CONUS sites.

The third difference between the development strategies is that TCAIMS follows DOD-STD-7935A and the Navy equivalent of the AF 700 series regulations, while CMOS follows DOD-STD-2167A and the AF 800 series regulations. As a result, the development process differs for each system in milestones, tasks, and documentation.

Perspective Two. Figures 1 and 2 illustrate the organizational areas of responsibility for the AF and Navy components which accomplish the planning, scheduling, execution, and reporting of cargo and passenger movements. Generic descriptions are used in place of service unique titles to facilitate comparisons. The paragraphs below summarize the responsibilities of each organizational grouping. The number for each organizational title corresponds to the number in the figure, and its responsibilities are found in the matching paragraph.

Air Force Organizational Groupings:

1. JCS
   a. Wartime responsibilities
      - Initiate movement order and monitor status
   b. Peacetime responsibilities
      - Monitor deliberate planning activities of the supported and supporting commands

2. MAJCOM
   a. Wartime responsibilities
      - Review and transfer movement order to base command element
      - Report summary movement data to JCS
      - Monitor movement activity
   b. Peacetime responsibilities
      - Periodically review subordinate unit movement requirements and transfer to JCS
      - Validate SAAM and forward to MAC

3. Base Command Element
   a. Wartime responsibilities
      - Pair and tailor order from MAJCOM
      - Activate base mobility apparatus
   b. Peacetime responsibilities
      - None

4. Base Mobility Apparatus
   a. Wartime responsibilities
      - Maintain unit requirements
      - Match tailored order to plan scenario
      - Prepare movement requirements and schedules for base transportation and units

- Reconcile requirements and schedules with unit availability and task changes

b. Peacetime responsibilities
- Deliberate planning for base deployment taskings
- Report projected transportation usage to MAJCOM

5. Base Units

a. Wartime responsibilities
- Implement movement requirement
- Request movement from transportation for non-OPLAN shipments
- Deliver cargo and passengers to base transportation

b. Peacetime responsibilities
- Prepare movement request (non-MILSTRIP)
- Deliver cargo to base transportation
- Pick up cargo from base transportation
- Deliberate planning for unit deployment taskings

6. Base Transportation Unit

a. Wartime responsibilities
- Respond to movement requirement and schedule
- Prepare movement documentation, manifests, and load plans
- Arrange non-unit lift
- Load cargo and passengers
- Report movement requirement to transportation agencies
- Report actual movement to MAJCOMs and transportation agencies

b. Peacetime responsibilities
- Receive, prepare, plan, and schedule shipments as requested
- Produce movement documentation, manifests, and load plans
- Provide advance shipping notification to consignee, enroute locations, and other transportation agencies
- Report movement to transportation agencies
- Reconcile advance shipping data with incoming cargo
- Request air and surface clearance
- Request routing and rating
- Load cargo
- Request SAAM from MAJCOM
- Capture and report workload data
- Provide shipment status to supply activities
- Deliberate planning for transportation unit deployment taskings

7. Supply Activities

a. Wartime responsibilities
- Request movement from transportation for non-OPLAN shipments
- Update the status of shipments

b. Peacetime responsibilities
- Send advice of impending shipment to transportation
- Deliver shipment to transportation

- Update the status of shipments
- Provide advance shipping notice to transportation

8. External Transportation Agencies
   a. Wartime responsibilities
      - Project transportation needs using movement reporting
      - Provide lift schedules
      - Provide conveyance
      - Report summary movement data to JCS
   b. Peacetime responsibilities
      - Provide lift schedules
      - Provide air and surface clearance
      - Provide conveyance
      - Satisfy SAAM requests
      - Provide rating and routing instructions

Navy Organizational Groupings:

1. JCS
   a. Wartime responsibilities
      - Initiate movement order and monitor status
   b. Peacetime responsibilities
      - Monitor deliberate planning activities of the supported and supporting commands

2. MAJCOM (FLTCINCs and OPNAV)
   a. Wartime responsibilities
      - Review and transfer movement order to base command element
      - Report summary movement data to JCS
      - Monitor movement activity
   b. Peacetime responsibilities
      - Periodically review subordinate unit movement requirements and transfer to JCS

3. Units
   a. Wartime responsibilities
      - Maintain unit requirements
      - Match tailored order to plan scenario
      - Reconcile requirements and schedules with unit availability and task changes
      - Identify transportation requirements and send to cargo and passenger transportation offices
      - Identify transportation requirements for non-OPLAN shipments
      - Implement arrangements made by transportation offices
      - Deliver cargo and passengers to POEs
      - Prepare air load plans
      - Report actual movement to MAJCOM
   b. Peacetime responsibilities
      - Deliberate planning for unit deployment taskings
      - Report projected transportation usage to MAJCOM

- Request cargo SAAM from NAVMTO
- Request passenger SAAM from NMPC
- Deliver cargo and passengers to POEs
- Load cargo and passengers

4. Cargo Transportation Office
   a. Wartime responsibilities
      - Respond to movement requirement and schedule
      - Respond to movement requirement for non-OPLAN shipments
      - Prepare movement documentation, manifests, and surface load plans
      - Arrange non-unit lift
      - Report movement requirement to transportation agencies
   b. Peacetime responsibilities
      - Plan and schedule shipments requested by unit
      - Prepare movement documentation, manifests, and surface load plans
      - Request air and surface clearance
      - Request routing and rating

5. Passenger Transportation Office
   a. Wartime responsibilities
      - Respond to movement requirement and schedule
      - Arrange non-unit lift
   b. Peacetime responsibilities
      - Plan and schedule the unit's movement requirements
      - Report actual movement to MAJCOM

6. Navy Material Transportation Office
   a. Wartime responsibilities
      - None
   b. Peacetime responsibilities
      - Review clearance requests
      - Validate cargo SAAM and forward to MAC

7. Navy Military Personnel Command
   a. Wartime responsibilities
      - None
   b. Peacetime responsibilities
      - Validate passenger SAAMs and forward to MAC

8. Chief of Naval Reserve Forces
   a. Wartime responsibilities
      - Provide reserve movement reports to JCS
   b. Peacetime responsibilities
      - Periodically review subordinate unit movement taskings and transfer to FLTCINC
      - Request cargo SAAM from NAVMTO
      - Request passenger SAAM from NMPC

9. External Transportation Agencies
   a. Wartime responsibilities

- Project transportation needs using movement reporting
- Provide lift schedules
- Provide conveyance
- Report summary movement data to JCS

b. Peacetime responsibilities
- Provide lift schedules
- Provide conveyance
- Satisfy cargo SAAM request
- Satisfy passenger SAAM request
- Provide rating and routing instructions

Compare and Contrast. We have analyzed the distribution of responsibilities within the organizational descriptions for each service. Giving consideration to the tasks required to fulfill the responsibilities, we have made the following observations:

1. Some responsibilities have similar tasks and are fulfilled by comparable organizational entities.
2. Some responsibilities have similar tasks but are fulfilled by different organizational entities.
3. Some similar responsibilities have different tasks but are fulfilled by comparable organizational entities.
4. Some similar responsibilities have different tasks and are fulfilled by different organizational entities.
5. Some responsibilities and their tasks are service exclusive.

These observations serve as categories to present the results of the analysis. Appendix A provides a cross reference of organizational responsibilities to categories.

CATEGORY 1. Some responsibilities have similar tasks and are fulfilled by comparable organizational entities. This first category finds parallel relationships among the organizational elements within the service MAJCOMs, JCS, and External Transportation Agencies that cover logistics command and control. The JCS implements the directives of the National Command Authorities by tasking the services and overseeing the effort. The Air Force and the Navy execute the directives and report back to the JCS. The External Transportation Agencies provide the lift resources and update status for the MAJCOMs and JCS.

Air Force Organizational Groupings:

1. JCS
   a. Wartime responsibilities
      - Initiate movement order and monitor status
   b. Peacetime responsibilities
      - Monitor deliberate planning activities of the supported and supporting commands

2. MAJCOM

a. Wartime responsibilities
   - Review and transfer movement order to base command element
   - Report summary movement data to JCS
   - Monitor movement activity
b. Peacetime responsibilities
   - Periodically review subordinate unit movement requirements and transfer to JCS

8. External Transportation Agencies
   a. Wartime responsibilities
      - Project transportation needs using movement reporting
      - Provide lift schedules
      - Provide conveyance
      - Report summary movement data to JCS
   b. Peacetime responsibilities
      - Provide lift schedules
      - Provide conveyance
      - Provide rating and routing instructions

Navy Organizational Groupings:

1. JCS
   a. Wartime responsibilities
      - Initiate movement order and monitor status
   b. Peacetime responsibilities
      - Monitor deliberate planning activities of the supported and supporting commands

2. MAJCOM (FLTCINCs and OPNAV)
   a. Wartime responsibilities
      - Review and transfer movement order to base command element
      - Report summary movement data to JCS
      - Monitor movement activity
   b. Peacetime responsibilities
      - Periodically review subordinate unit movement requirements and transfer to JCS

9. External Transportation Agencies
   a. Wartime responsibilities
      - Project transportation needs using movement reporting
      - Provide lift schedules
      - Provide conveyance
      - Report summary movement data to JCS
   b. Peacetime responsibilities
      - Provide lift schedules
      - Provide conveyance
      - Provide rating and routing instructions

CATEGORY 2. Some responsibilities have similar tasks but are fulfilled by different organizational entities. This category

contains more entries than any of the other four. This illustrates that the AF and Navy have taken different organizational approaches to implement the capabilities needed to meet the DOD TCAIMS charter. For example, the AF Base Mobility Apparatus plus the Base Unit are roughly equivalent to the Navy Unit. Also, the AF Base Transportation Unit handles both passenger and cargo movements while the Navy handles these independently through their Cargo and Passenger Transportation Offices.

Air Force Organizational Groupings:

2. MAJCOM
   b. Peacetime responsibilities
      - Validate SAAM and forward to MAC

4. Base Mobility Apparatus
   a. Wartime responsibilities
      - Maintain unit requirements
      - Match tailored order to plan scenario
      - Reconcile requirements and schedules with unit availability and task changes
   b. Peacetime responsibilities
      - Deliberate planning for base deployment taskings
      - Report projected transportation usage to MAJCOM

5. Base Units
   b. Peacetime responsibilities
      - Deliberate planning for unit deployment taskings

6. Base Transportation Unit
   a. Wartime responsibilities
      - Respond to movement requirement and schedule
      - Prepare movement documentation, manifests, and load plans
      - Arrange non-unit lift
      - Report movement requirement to transportation agencies
      - Report actual movement to MAJCOMs and transportation agencies
   b. Peacetime responsibilities
      - Receive, prepare, plan, and schedule shipments as requested
      - Produce movement documentation, manifests, and load plans
      - Request air and surface clearance
      - Request routing and rating

8. External Transportation Agencies
   b. Peacetime responsibilities
      - Provide air and surface clearance

Navy Organizational Groupings:

3. Units
   a. Wartime responsibilities

- Maintain unit requirements
- Match tailored order to plan scenario
- Reconcile requirements and schedules with unit availability and task changes
- Prepare air load plans
- Report actual movement to MAJCOM

b. Peacetime responsibilities
- Deliberate planning for unit deployment taskings
- Report projected transportation usage to MAJCOM

4. Cargo Transportation Office
a. Wartime responsibilities
- Respond to movement requirement and schedule
- Prepare movement documentation, manifests, and surface load plans
- Arrange non-unit lift
- Report movement requirement to transportation agencies

b. Peacetime responsibilities
- Plan and schedule shipments requested by unit
- Prepare movement documentation, manifests, and surface load plans
- Request air and surface clearance
- Request routing and rating

5. Passenger Transportation Office
a. Wartime responsibilities
- Respond to movement requirement and schedule
- Arrange non-unit lift

6. Navy Material Transportation Office
b. Peacetime responsibilities
- Review clearance requests

CATEGORY 3. In one case, similar responsibilities have different tasks but are fulfilled by comparable organizational entities. Both services forward SAAM requests to the same transportation agency. The difference is that the Navy segregates SAAM requests by type for separate validation, and the Air Force does not.

Air Force Organizational Groupings:

8. External Transportation Agencies
b. Peacetime responsibilities
- Satisfy SAAM requests

Navy Organizational Groupings:

9. External Transportation Agencies
b. Peacetime responsibilities
- Satisfy cargo SAAM request
- Satisfy passenger SAAM request

CATEGORY 4. Some similar responsibilities have different tasks and are fulfilled by different organizational entities. For example, identification and implementation of AF deployment options are pushed to Base Transportation and the Base Unit by the Base Mobility Apparatus. In contrast, there is an organizational division of responsibilities in the Navy between identifying deployment options and their implementation. The former is handled at the installation by the Unit and the latter is done offsite by the two Transportation Offices. Another difference relates to the responsibility for SAAM requests. All AF SAAM requests are forwarded to the supporting MAJCOM, while Navy SAAM requests are divided between the Navy Material Transportation Office and the Navy Military Personnel Command.

Air Force Organizational Groupings:

4. Base Mobility Apparatus
   a. Wartime responsibilities
      - Prepare movement requirements and schedules for base transportation and units

5. Base Units
   a. Wartime responsibilities
      - Request movement from transportation for non-OPLAN shipments
      - Deliver cargo and passengers to base transportation
   b. Peacetime responsibilities
      - Deliver cargo and passengers to base transportation

6. Base Transportation Unit
   a. Wartime responsibilities
      - Load cargo and passengers
   b. Peacetime responsibilities
      - Request SAAM from MAJCOM
      - Load cargo

Navy Organizational Groupings:

3. Units
   a. Wartime responsibilities
      - Identify transportation requirements and send to cargo and passenger transportation offices for preparation
      - Identify transportation requirements for non-OPLAN shipments
      - Implement arrangements made by transportation offices
      - Deliver cargo and passengers to POEs
   b. Peacetime responsibilities
      - Request cargo SAAM from NAVMTO
      - Request passenger SAAM from NMPC

- Deliver cargo and passengers to POEs

4. Cargo Transportation Office
   a. Wartime responsibilities
      - Respond to movement requirements for non-OPLAN shipments

5. Passenger Transportation Office
   b. Peacetime responsibilities
      - Plan and schedule the unit's movement requirements

6. Navy Material Transportation Office
   b. Peacetime responsibilities
      - Validate cargo SAAM and forward to MAC

7. Navy Military Personnel Command
   b. Peacetime responsibilities
      - Validate passenger SAAMs and forward to MAC

CATEGORY 5. Some responsibilities and their tasks are service exclusive. There are service specific aspects within the areas of responsibility. These aspects are found in the AF Base Command Element, Base Mobility Apparatus, Base Unit, Base Transportation Unit, and Supply Activities, as well as the CNRF.

Air Force Organizational Groupings:

3. Base Command Element
   a. Wartime responsibilities
      - Pair and tailor order from MAJCOM
      - Activate base mobility apparatus

5. Base Units
   a. Wartime responsibilities
      - Implement movement requirement
   b. Peacetime responsibilities
      - Prepare movement request (non-MILSTRIP)
      - Pick up cargo from base transportation

6. Base Transportation Unit
   b. Peacetime responsibilities
      - Provide advance shipping notification to consignee, enroute locations, and other transportation agencies
      - Report movement to transportation agencies
      - Reconcile advance shipping data with incoming cargo
      - Capture and report workload data
      - Provide shipment status to supply activities
      - Deliberate planning for transportation unit deployment taskings

7. Supply Activities
   a. Wartime responsibilities
      - Request movement from transportation for non-OPLAN

shipments.
- Update the status of shipments

b. Peacetime responsibilities
- Send advice of impending shipment to transportation
- Deliver shipment to transportation
- Update the status of shipments
- Provide advance shipping notice to transportation

Navy Organizational Groupings:

8. Chief of Naval Reserve Forces
   a. Wartime responsibilities
      - Provide reserve movement reports to JCS
   b. Peacetime responsibilities
      - Periodic review of subordinate unit movement taskings and transfer to FLTCINC
      - Request cargo SAAM from NAVMTO
      - Request passenger SAAM from NMPC

Perspective Three. The purpose of this section is to explore the differences between the AF and Navy in terms of processes and systems utilized. Figures 3 and 4 are provided to illustrate the connection between the organizational groupings and the systems that support them. Service unique titles are introduced here to add meaningful orientation to task and process descriptions for the functional reader. The major functions are mobility, day-to-day operations, and SAAMs.

Mobility. The general phases of mobility are to plan, prepare, deploy, and report. Each of these is discussed in the following paragraphs as it applies to the AF and Navy.

1. Plan.

a. Background. The AF utilizes the existing COMPES to build its movement requirements. COMPES is an information management system used by AF logistics plans personnel for assessing unit capability, developing UTC packages, and reporting this data to MAJCOMs during deliberate planning. It then updates the UTCs after tailoring to fit the contingency. At execution, COMPES produces packing and load lists used by the units to assemble their material for deployment. The system will electronically transmit the cargo source data (mobility TCN, physical data etc.,), personnel source data (MPN, AFSC etc.,) and the associated processing and loading schedules to CMOS. MILSTAMP documentation will be prepared by CMOS in support of the COMPES movement forecasts. Navy planning, at the unit level, will utilize the TCAIMS unit data base. The unit transportation coordinator (from the generic Navy Unit) will maintain the unit's movement

requirements, which includes a description of the unit's personnel and equipment. The units tailor their own requirements, at execution, to fit the contingency.

b. Difference. The major difference is that the AF is integrating COMPES into its TCAIMS objectives, while the Navy must build a comparable tool as part of its TCAIMS program.

2. Prepare.

a. Background. For the AF, COMPES will pass advance records to CMOS, identifying salient characteristics of the cargo and passengers to be deployed. CMOS will be used to verify that the cargo and passengers arriving at the assembly points are part of the COMPES planned shipment. Shipping documentation will be verified and changes entered into the data base by LOGMARS equipment. The COMPES data will be converted by CMOS into MILSTAMP compatible format. CMOS will generate updated shipping documentation to reflect changes made during in-check. CMOS will recognize when processing is complete and produce manifests, special handling documentation, and load plans (via interface with CALM for airlift). CMOS will electronically transmit ATCMDs, REPSHIPs, ETRs, domestic and international freight routing requests, bills of lading, advanced manifests, load plans, and summary movement data to their respective destinations. For the Navy, once the unit transportation coordinator receives a deployment order, he transmits his transportation requirements to the supporting transportation offices. The BSO (Cargo Transportation) and the NAVPTO (Passenger Transportation) arrange transportation with the transportation components and commercial carriers, and electronically transmit schedule information, guidance in preparing material and equipment for movement, and shipping documentation to the unit transportation coordinator. The BSO will utilize TCAIMS to produce much of the same MILSTAMP documentation as CMOS. Units will design air load plans using CALM.

b. Differences. After COMPES provides the requirements, movement preparation is supported exclusively by CMOS at the TMO (Base Transportation Office). For the Navy this role is divided between the unit and its supporting transportation offices who will jointly share TCAIMS functionality. The documents furnished by the Navy do not describe the TCAIMS processes for cargo and passenger in-check by the unit transportation coordinator. Specifically omitted are descriptions of LOGMARS applications for information collection and transmission to the TCAIMS data base. The verification between the planned requirement and the actual movement accomplished by CMOS through its LOGMARS features does not appear to have a counterpart in TCAIMS.

3. Deploy and Report.

a. Background. The AF base transportation unit will load cargo and passengers on all organic and commercial lift departing from the installation. Personnel traveling to POEs via non-organic lift are the exception. Navy material and personnel will generally be dispatched to POEs where DACGs and their water port equivalent will assist port representatives with the embarkation. Two basic types of reporting are present for the services, lateral and upward. Lateral reports are detailed in nature and inform other transportation systems of shipment contents. Upward reporting is summary in nature and used for movement visibility.

Lateral reporting begins in the AF once the user advises CMOS of shipment departure. The system will send the manifest, load plan, and related information to the appropriate location. CMOS lateral reporting during mobility accomplishes the same objectives as the reporting done for day-to-day operations. Reporting documents movement for intransit visibility, billing data collection, and workload forecasting. CMOS supports lateral reporting to ETADS, CFMS, CAPS, ASPUR, METS II, TERMS, DASP-E, GOPAX, other CMOSs, and TCAIMSs. Navy TCAIMS schedules and coordinates movement to the port of embarkation, including lateral status reporting to CAPS, ASPUR, and GOPAX.

AF upward reporting consists of summary data sent to the owning and gaining MAJCOMs and the transportation component providing the lift. The MAJCOMs will take MILSTAMP formatted data and convert it back to COMPES format for entry into the JDS. Navy upward reporting originates at the unit with summary data transmitted to the FLTCINC and or OPNAV where it is converted into JDS readable data format. The FLTCINC and or OPNAV transmits the reports to the JDS.

b. Difference. The AF largely deploys from its own installations. Naval forces move to POEs or commercial airports where embarkation is managed by the providers of lift. CMOS lateral reporting will be more extensive than TCAIMS. Of particular note is CMOS' plan to provide movement data to other CMOSs and TCAIMSs. The upward reporting for the two services is primarily the same with the exception of the added echelon of the OPNAV. Its AF counterpart, HQ USAF, will not interact with the JDS through CMOS. The MAJCOM will do this, utilizing CMOS.

Day-to-Day Operations. The general phases of day-to-day operations are to plan, prepare, and ship and report. Each of these is discussed in the following paragraphs as it applies to the AF and Navy.

1. Plan.

a. Background. The AF planning cycle begins at the TMO with the establishment of a shipping record in the CMOS data base. Records are established via advance notices and walk-in requests. Advance notices are reconciled with movement documents upon arrival of the shipment. Shipments are either turned over to the consignee or passed on for further handling. CMOS provides automated capabilities to support these processes. Navy units request support from their BSO. The BSO returns planning guidance to the unit.

b. Difference. AF CMOS utilizes an electronic interface with SBSS, SC&D, GSA, and DLA to establish advance records for shipments originating at these supply activities. Navy TCAIMS does not automate this information flow.

2. Prepare.

a. Background. When the shipment arrives at the TMO, the CMOS in-check capability will update the advance shipping record against the movement document and receipt for the material. CMOS is ready to terminate the shipment and turn it over to the consignee, or to prepare it for onward movement. For the latter, the shipment planning process will select the mode, identify items for consolidation, and construct the TCN. The shipment is packaged, consolidated, containerized, and or palletized with CMOS producing the appropriate documentation, i.e., the military shipping label, special handling certification, pallet ID, and release/receipt document. The Navy Unit packs and palletizes its cargo in response to BSO guidance. Mode selection and decisions regarding conveyance are also made by the BSO. The BSO produces some but not all of the same documentation as the AF TMO. The NAVPTO schedules passenger transportation with MAC, MTMC and the commercial airlines, and relays the arrangements to the unit.

b. Difference. The AF TMO will use CMOS to reconcile advance shipping records with actual movement documents, acknowledge receipt of material, assign warehouse storage locations, conduct shipment planning, and prepare cargo for onward movement. TCAIMS will not use LOGMARS identification methods to receipt for material from supply sources, other TCAIMSs, and external transportation systems. Nor will the system perform warehouse management of cargo on-hand. The absence of an integrated freight organization at a single site is evident in the separation of responsibilities between the unit and the BSO. In contrast to TCAIMS, CMOS will not be used to move personnel during day-to-day operations.

3. Ship and Report.

a. Background. When the items for shipment are selected, CMOS will prepare all load plans and produce the manifest document. The AF TMO will load the cargo on the conveyance. The CMOS data

base will be updated and movement reporting data accumulated for dispersion. Navy BSOs will use TCAIMS to generate manifest documents and surface load plans. The unit will prepare air load plans via CALM. Navy material and passengers are sent to the assembly points, normally a water or an aerial port of embarkation, where Navy representatives are present to assist with the loading.

b. Difference. CMOS will consolidate load planning for all modes while TCAIMS divides the responsibilities between the unit and the BSO. Also, the AF TMO loads cargo and the Navy relies to a large degree on the provider of lift. CMOS also reports movement to a wider network of logistics and other systems.

SAAMs. The general phases of SAAM movements are to plan, prepare, ship, and report. Because the SAAM process is relatively straightforward for both services, the phases have been consolidated into a background and difference discussion.

1. Background. AF SAAM requests are forwarded by the TMO to the supporting command for validation and transfer to MAC. The confirmations are returned to the unit by the same route. CMOS will install a terminal in the MAJCOM for this process. For TCAIMS, Navy SAAM requests will be generated by the unit; however, cargo requests will be transmitted to the NAVMTO, and passenger SAAM requests will be sent to the NMPC. After validation, cargo SAAMs are sent to MAC for confirmation and scheduling. MAC returns the arrangements directly to the unit. In the case of passenger SAAMs, NMPC forwards the request to MAC who returns the filled request to NMPC before it is passed back to the unit.

2. Difference. CMOS will send SAAM requests to one place for validation. TCAIMS segregates cargo and passenger requests and relies on two agencies for validation.

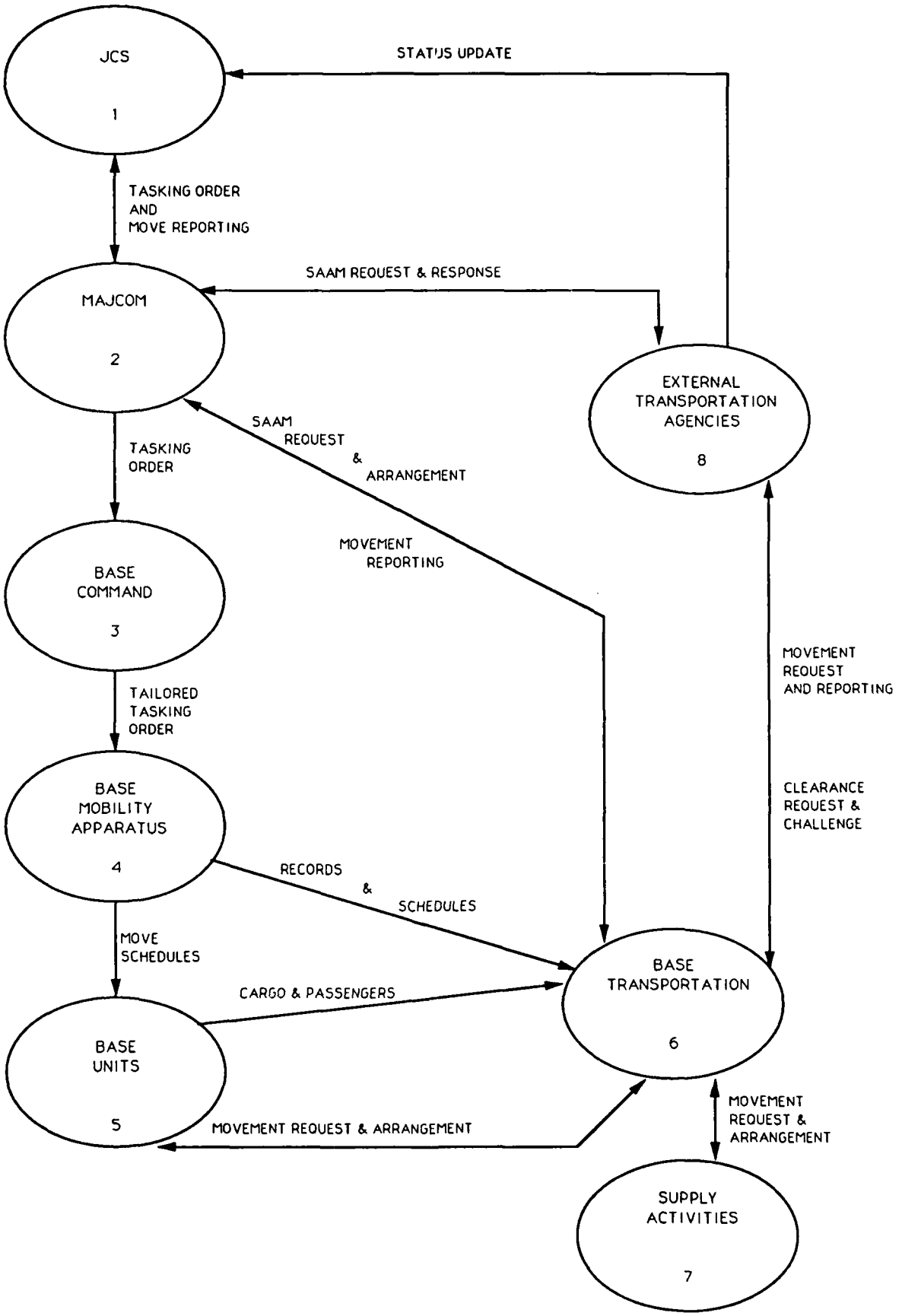

FIGURE 1 - AF ORGANIZATIONAL AREAS

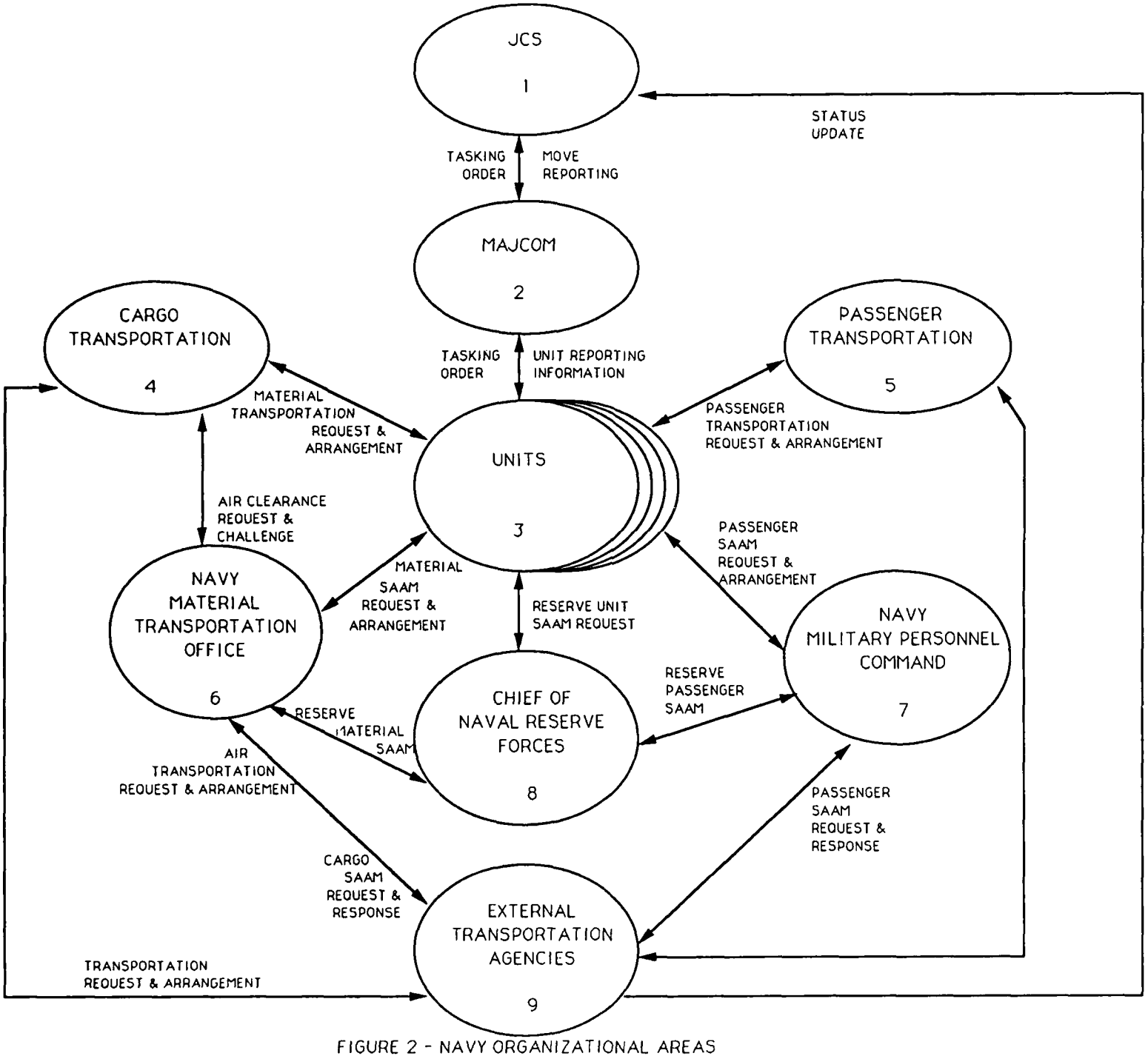

FIGURE 2 - NAVY ORGANIZATIONAL AREAS

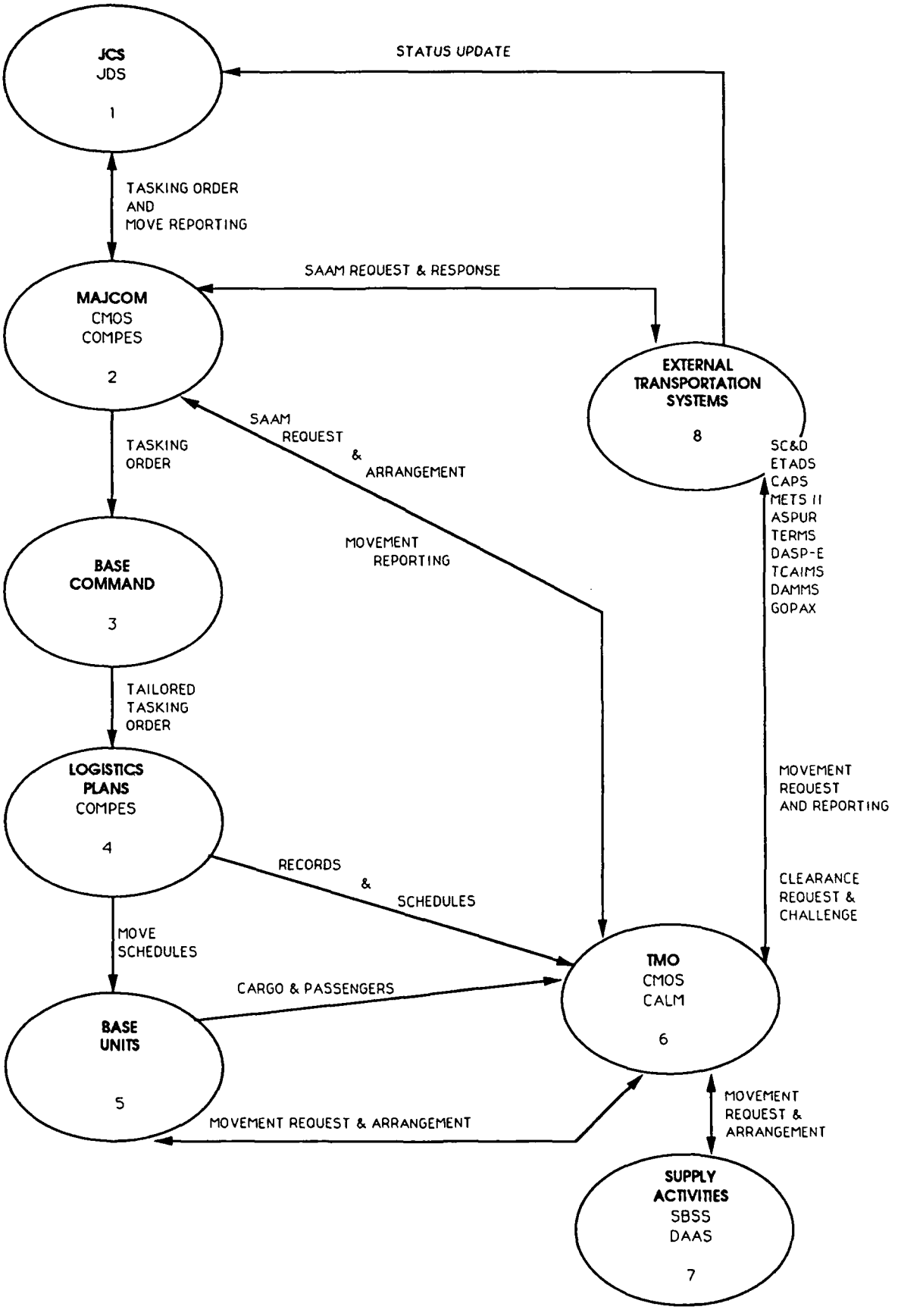

FIGURE 3 - AF SYSTEM RELATIONSHIPS

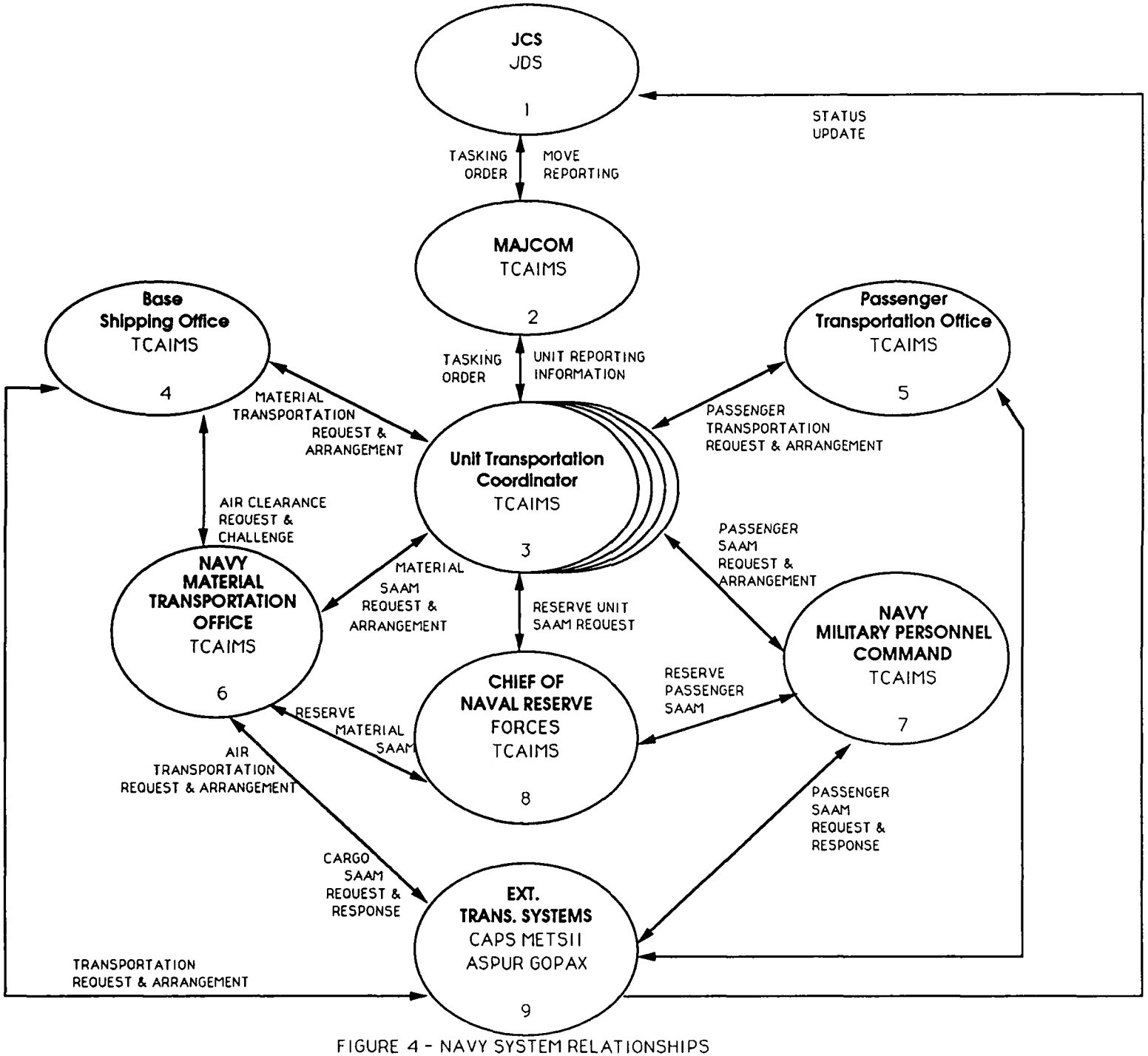

FIGURE 4 - NAVY SYSTEM RELATIONSHIPS

Appendix B

AF	-	Air Force
AFSC	-	Air Force Specialty Code
ALD	-	Airlift Division
ASPUR	-	Automated System for Processing Unit Requirements
ATCMD	-	Advance Transportation Control and Movement Document
BSO	-	Base Shipping Office
CALM	-	Computer Aided Load Manifesting
CAPS	-	Consolidated Aerial Port Subsystem
CFMS	-	CONUS Freight Management System
CMOS	-	Cargo Movement Operations System
CNRF	-	Chief of Naval Reserve Forces
COMPES	-	Contingency Operations Mobility Planning and Execution System
CONUS	-	Continental United States
DACG	-	Departure Airfield Control Group
DASP-E	-	Department of the Army Standard Port System Enhanced
DLA	-	Defence Logistics Agency
DOD	-	Department of Defense
EDI	-	Electronic Data Interchange
ETADS	-	Enhanced Transportation Automated Data System
ETR	-	Export Traffic Release
FLTCINC	-	Fleet Commanders in Chief
GOPAX	-	Groups Operational Passenger System
GSA	-	General Services Agency
HQ	-	Headquarters
ID	-	Identifier
JCS	-	Joint Chiefs of Staff
JDS	-	Joint Deployment System
LOGMARS	-	Logistics Applications of Marking and Reading Symbology
MAC	-	Military Airlift Command
MAJCOM	-	Major Command
METS II	-	Mechanized Export Traffic System
MILSTAMP	-	Military Standard Transportation and Movement Procedures
MILSTRIP	-	Military Standard Requisitioning and Issue Procedures
MPN	-	Mobility Position Number
MTMC	-	Military Traffic Management Command
NAF	-	Numbered Air Forces
NAVMTO	-	Navy Material Transportation Office
NAVPTO	-	Navy Passenger Transportation Office
NMPC	-	Naval Military Personnel Command
OPLAN	-	Operational Plan
OPNAV	-	Office of the Chief of Naval Operations
POE	-	Port of Embarkation
REPSHIP	-	Report of Shipment
SAAM	-	Special Assignment Airlift Mission
SBSS	-	Standard Base Supply System
SC&D	-	Stock Control and Distribution
STD	-	Standard
TCAIMS	-	Transportation Coordinators' Automated Information for Movements System
TCN	-	Transportation Control Number
TERMS	-	Terminal Management System
TMO	-	Traffic Management Office
UTC	-	Unit Type Code

Appendix A

This appendix contains a cross reference from the organizational responsibilities to the difference and similarity categories. It is to be used in conjunction with the Compare and Contrast portion of Perspective Two to completely illustrate the relationship. The category number is in parentheses at the end of each responsibility.

Air Force Organizational Groupings:

1. JCS
   a. Wartime responsibilities
      - Initiate movement order and monitor status (1)
   b. Peacetime responsibilities
      - Monitor deliberate planning activities of the supported and supporting commands (1)

2. MAJCOM
   a. Wartime responsibilities
      - Review and transfer movement order to base command element (1)
      - Report summary movement data to JCS (1)
      - Monitor movement activity (1)
   b. Peacetime responsibilities
      - Periodically review subordinate unit movement requirements and transfer to JCS (1)
      - Validate SAAM and forward to MAC (2)

3. Base Command Element
   a. Wartime responsibilities
      - Pair and tailor order from MAJCOM (5)
      - Activate base mobility apparatus (5)
   b. Peacetime responsibilities
      - None

4. Base Mobility Apparatus
   a. Wartime responsibilities
      - Maintain unit requirements (2)
      - Match tailored order to plan scenario (2)
      - Prepare movement requirements and schedules for base transportation and units (4)
      - Reconcile requirements and schedules with unit availability and task changes (2)
   b. Peacetime responsibilities
      - Deliberate planning for base deployment taskings (2)
      - Report projected transportation usage to MAJCOM (2)

5. Base Units
   a. Wartime responsibilities
      - Implement movement requirement (5)
      - Request movement from transportation for non-OPLAN shipments (4)
      - Deliver cargo and passengers to base transportation (4)

b. Peacetime responsibilities
   - Prepare movement request (non-MILSTRIP) (5)
   - Deliver cargo to base transportation (4)
   - Pick up cargo from base transportation (5)
   - Deliberate planning for unit deployment taskings (2)

6. Base Transportation Unit
   a. Wartime responsibilities
      - Respond to movement requirement and schedule (2)
      - Prepare movement documentation, manifests, and load plans (2)
      - Arrange non-unit lift (2)
      - Load cargo and passengers (4)
      - Report movement requirement to transportation agencies (2)
      - Report actual movement to MAJCOMs and transportation agencies (2)
   b. Peacetime responsibilities
      - Receive, prepare, plan, and schedule shipments as requested (2)
      - Produce movement documentation, manifests, and load plans (2)
      - Provide advance shipping notification to consignee, enroute locations, and other transportation agencies (5)
      - Report movement to transportation agencies (5)
      - Reconcile advance shipping data with incoming cargo (5)
      - Request air and surface clearance (2)
      - Request routing and rating (2)
      - Load cargo (4)
      - Request SAAM from MAJCOM (4)
      - Capture and report workload data (5)
      - Provide shipment status to supply activities (5)
      - Deliberate planning for transportation unit deployment taskings (5)

7. Supply Activities
   a. Wartime responsibilities
      - Request movement from transportation for non-OPLAN shipments (5)
      - Update the status of shipments (5)
   b. Peacetime responsibilities
      - Send advice of impending shipment to transportation (5)
      - Deliver shipment to transportation (5)
      - Update the status of shipments (5)
      - Provide advance shipping notice to transportation (5)

8. External Transportation Agencies
   a. Wartime responsibilities
      - Project transportation needs using movement reporting (1)
      - Provide lift schedules (1)
      - Provide conveyance (1)
      - Report summary movement data to JCS (1)
   b. Peacetime responsibilities
      - Provide lift schedules (1)
      - Provide air and surface clearance (2)

- Provide conveyance (1)
- Satisfy SAAM requests (3)
- Provide rating and routing instructions (1)

Navy Organizational Groupings:

1. JCS
   a. Wartime responsibilities
      - Initiate movement order and monitor status (1)
   b. Peacetime responsibilities
      - Monitor deliberate planning activities of the supported and supporting commands (1)

2. MAJCOM (FLTCINCs and OPNAV)
   a. Wartime responsibilities
      - Review and transfer movement order to base command element (1)
      - Report summary movement data to JCS (1)
      - Monitor movement activity (1)
   b. Peacetime responsibilities
      - Periodically review subordinate unit movement requirements and transfer to JCS (1)

3. Units
   a. Wartime responsibilities
      - Maintain unit requirements (2)
      - Match tailored order to plan scenario (2)
      - Reconcile requirements and schedules with unit availability and task changes (2)
      - Identify transportation requirements and send to cargo and passenger transportation offices (4)
      - Identify transportation requirements for non-OPLAN shipments (4)
      - Implement arrangements made by transportation offices (4)
      - Deliver cargo and passengers to POEs (4)
      - Prepare air load plans (2)
      - Load cargo and passengers (2)
      - Report actual movement to MAJCOM (2)
   b. Peacetime responsibilities
      - Deliberate planning for unit deployment taskings (2)
      - Report projected transportation usage to MAJCOM (2)
      - Request cargo SAAM from NAVMTO (4)
      - Request passenger SAAM from NMPC (4)
      - Deliver cargo and passengers to POEs (4)

4. Cargo Transportation Office
   a. Wartime responsibilities
      - Respond to movement requirement and schedule (2)
      - Respond to movement requirement for non-OPLAN shipments (4)
      - Prepare movement documentation, manifests, and surface load plans (2)

- Arrange non-unit lift (2)
- Report movement requirement to transportation agencies (2)

b. Peacetime responsibilities
- Plan and schedule shipments requested by unit (2)
- Prepare movement documentation, manifests, and surface load plans (2)
- Request air and surface clearance (2)
- Request routing and rating (2)

5. Passenger Transportation Office
a. Wartime responsibilities
- Respond to movement requirement and schedule (2)
- Arrange non-unit lift (2)
- Report actual movement to MAJCOM (2)

b. Peacetime responsibilities
- Plan and schedule the unit's movement requirements (4)

6. Navy Material Transportation Office
a. Wartime responsibilities
- None

b. Peacetime responsibilities
- Review clearance requests (2)
- Validate cargo SAAM and forward to MAC (4)

7. Navy Military Personnel Command
a. Wartime responsibilities
- None

b. Peacetime responsibilities
- Validate passenger SAAMs and forward to MAC (4)

8. Chief of Naval Reserve Forces
a. Wartime responsibilities
- Provide reserve movement reports to JCS (5)

b. Peacetime responsibilities
- Periodically review subordinate unit movement taskings and transfer to FLTCINC (5)
- Request cargo SAAM from NAVMTO (5)
- Request passenger SAAM from NMPC (5)

9. External Transportation Agencies
a. Wartime responsibilities
- Project transportation needs using movement reporting (1)
- Provide lift schedules (1)
- Provide conveyance (1)
- Report summary movement data to JCS (1)

b. Peacetime responsibilities
- Provide lift schedules (1)
- Provide conveyance (1)
- Satisfy cargo SAAM request (3)
- Satisfy passenger SAAM request (3)
- Provide rating and routing instructions (1)